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ACTR2 / ARP2 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS13253

Specification

ACTR2 / ARP2 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P61160
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**45kDa KDa**

ACTR2 / ARP2 Antibody - Additional Information

Gene ID 10097

Other Names
Actin-related protein 2, Actin-like protein 2, ACTR2, ARP2

Target/Specificity
Human Arp2. Predicted cross-reactivity based on amino acid sequence homology: rat (99%), zebrafish (86%).

Reconstitution & Storage
Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions
ACTR2 / ARP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ACTR2 / ARP2 Antibody - Protein Information

Name ACTR2

Synonyms ARP2

Function
ATP-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin polymerization upon stimulation by nucleation-promoting factor (NPF) (PubMed:9000076). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility (PubMed:9000076). Seems to contact the pointed end of the daughter actin filament (PubMed:9000076). In podocytes, required for the formation of lamellipodia downstream of AVIL and PLCE1 regulation (PubMed:29058690). In addition to its role in the cytoplasmic cytoskeleton, the Arp2/3 complex also promotes actin

polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA (PubMed:17220302, PubMed:29925947). The Arp2/3 complex promotes homologous recombination (HR) repair in response to DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-strand breaks (DSBs) (PubMed:29925947).

Cellular Location
Cytoplasm, cytoskeleton. Cell projection. Nucleus

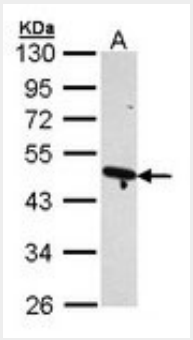
Volume
50 µl

ACTR2 / ARP2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

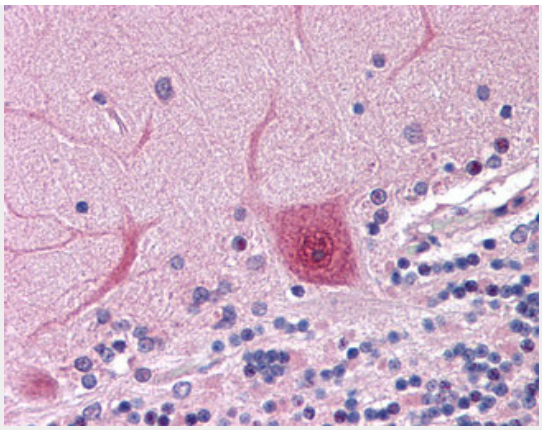
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACTR2 / ARP2 Antibody - Images

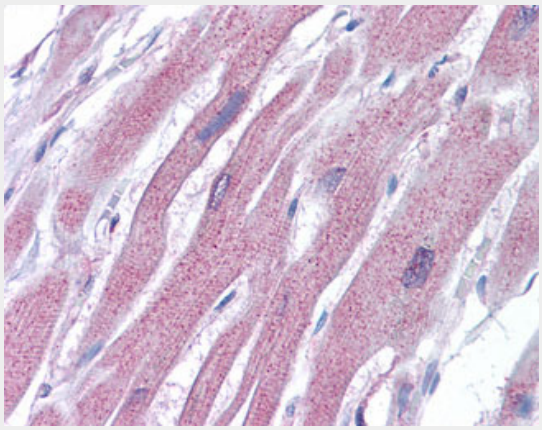


Sample (30 ug of whole cell lysate). A: H1299. 10% SDS PAGE. ACTR2 antibody diluted at 1:1000.

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Anti-ARP2 antibody IHC of human brain, cerebellum.



Anti-ARP2 antibody IHC of human heart.

ACTR2 / ARP2 Antibody - Background

Functions as ATP-binding component of the Arp2/3 complex which is involved in regulation of actin polymerization and together with an activating nucleation-promoting factor (NPF) mediates the formation of branched actin networks. Seems to contact the pointed end of the daughter actin filament.

ACTR2 / ARP2 Antibody - References

Welch M.D.,et al.J. Cell Biol. 138:375-384(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Hillier L.W.,et al.Nature 434:724-731(2005).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.